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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/000,207	11/02/2001	Alan G. Turek	DP-305875	9130

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VINCENT A. CICHOSZ, ESQ.
DELPHI TECHNOLOGIES, INC.
P.O. Box 5052
Mail Code: 480-414-420
Troy, MI 48007-5052

EXAMINER

TRAN, HIEN THI

ART UNIT PAPER NUMBER

1764

DATE MAILED: 08/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/000,207

Applicant(s)

TUREK, ALAN G.

Examiner

Hien Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 and 15-19 is/are pending in the application.
- 4a) Of the above claim(s) 1-9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 and 15-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-12 and 15-19 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 12, 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 12, line 2 it is unclear as to whether the core is the same as to the core set forth in claim 10, line 19, and where they are both disclosed in the specification and shown in the drawings. See claim 19 likewise.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

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5. The art area applicable to the instant invention is that of exhaust emission control device.

One of ordinary skill in this art is considered to have at least a B.S. degree, with additional education in the field and at least 5 years practical experience working in the art; is aware of the state of the art as shown by the references of record, to include those cited by applicants and the examiner (*ESSO Research & Engineering V Kahn & Co*, 183 USPQ 582 1974) and who is presumed to know something about the art apart from what references alone teach (*In re Bode*, 193 USPQ 12, (16) CCPA 1977); and who is motivated by economics to depart from the prior art to reduce costs consistent with the desired product characteristics. *In re Clinton* 188 USPQ 365, 367 (CCPA 1976) and *In re Thompson* 192 USPQ 275, 277 (CCPA 1976).

6. Claims 10-12, 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE 3,700,070 in view of EP 413,998.

With respect to claims 10, 15, 16, DE 3,700,070 discloses an exhaust emission control device and a method of manufacturing said device, comprising:

a substrate 4;

a housing 6 having an inlet end and an outlet end;

a retention material 16 supporting said substrate 4 in said housing 6 between said inlet end and said outlet end;

a pair of outer shells 2, one of said outer shells being disposed on said inlet end, and a second one of said outer shells being disposed on said outlet end;

a pair of insulators 20 comprised of insulation material, e.g. ceramic fibers, and binder, e.g. mica, said insulators having a first surface disposed adjacent to an inner

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surface of said outer shell 2, and a second surface defining inlet and outlet passages of the device, said second surface extending from an insulator inboard end to an insulator outboard end;

an inner sheet 12 overlaying the second surface of the insulator associated with the inlet end and extending from an inboard end adjacent said insulator inboard end to an outboard end adjacent said insulator outboard end; and

an annular core 18 affixed to the inner surface of each outer shell 2 adjacent to the outboard end of the associated insulator and extending inwardly to circumferentially overlay and retain the outboard end of the inner sheet 12 to the insulator second surface; wherein the substrate 4 and retention material 16 overlay and retains the inboard end of the inner sheet 12 to the insulator second surface (see, for example, Fig. 1).

The apparatus and method of DE 3,700,070 are substantially the same as that of the instant claims, but is silent as to whether the inner sheet may be made from open, woven mesh.

However, EP 413,998 discloses the conventionality of using inner screen funnels to overlay the second surface of the insulator.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to alternate use the mesh/screen as the inner sheet to overlay the second surface of the insulator in the apparatus and method of DE 3,700,070 so as to retain the insulator in position thereof as taught by EP 413,998, since such a modification would have involved a mere substitution of known equivalent material/structures. A substitution of known equivalent material/structures is generally recognized as being within the level of ordinary skill in the art. *In re Fout* 213 USPQ 532 (CCPA 1982); *In re*

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Susi 169 USPQ 423 (CCPA 1971); *In re Siebentritt* 152 USPQ 618 (CCPA 1967); *In re Ruff* 118 USPQ 343 (CCPA 1958).

With respect to claim 12, DE 3,700,070 discloses that the substrate is a catalytic converting substrate (translation page 11).

With respect to claims 12, 19, DE 3,700,070 discloses that the insulator each further comprises a core 18 connecting the outboard end to said outer shell 2.

With respect to claims 17-18, note the integral housing in Fig. 1 of DE 3,700,070.

7. Claims 10-12, 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shirk et al (WO 98/50688) in view of EP 413,998 and DE 3,700,070.

With respect to claims 10, 15, 16, Shirk et al discloses an exhaust emission control device and a method of manufacturing said device, comprising:

a substrate 18;

a housing 12 having an inlet end 14 and an outlet end 16;

a retention material 22 supporting said substrate 18 in said housing 12 between said inlet end and said outlet end;

a pair of outer shells 26, one of said outer shells being disposed on said inlet end 14, and a second one of said outer shells being disposed on said outlet end 16; and

a pair of insulators 30, 40, 60, etc. comprised of insulation material and binder, said insulators having a first surface disposed adjacent to an inner surface of said outer shell 26, and a second surface defining inlet and outlet passages of the device, said second surface extending from an insulator inboard end to an insulator outboard end; and

an inner sheet 28 overlaying the second surface of the insulator associated with the inlet end and extending from an inboard end adjacent said insulator inboard end to an

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outboard end adjacent said insulator outboard end (see for example, Fig. 1, page 7, lines 13-31).

The apparatus and method of Shirk et al are substantially the same as that of the instant claims, but fail to disclose provision of a core and are silent as to whether the inner sheet may be made from open, woven mesh.

However, the same comments with respect to EP 413,998 regarding the mesh apply.

Also, the same teachings regarding the core in DE 3,700,070 apply.

It would have been obvious to one having ordinary skill in the art to use the mesh as taught by EP 413,998 and the core as taught by DE 3,700,070 in the apparatus and method of Shirk et al, on the basis of its suitability for the intended use as a matter of obvious design choice and since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together or vice-versa involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893).

With respect to claim 11, Shirk et al discloses that the substrate is a catalytic converting substrate (page 5, lines 1-3).

With respect to claims 12, 19, Shirk et al discloses that the insulator each further comprises a core 28 connecting the outboard end to said outer shell 26.

With respect to claims 17-18, the method of Shirk et al is substantially the same as that of the instant claims, but fails to disclose whether the housing may include integral outer shell at said inlet and outlet end.

However, EP 413,998 discloses the conventionality of providing a housing 1 including integral outer shell 5, 6 at the inlet and outlet ends.

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It would have been obvious to one having ordinary skill in the art to alternately form an integral outer shell as taught by EP 413,998 in the method of Shirk et al on the basis of its suitability for the intended use as a matter of obvious design choice, as use of such is conventional in the art and no cause for patentability here and since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893).

8. Claims 10-12, 15-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sanocki et al (WO 97/48890) in view of EP 413,998 and DE 3,700,070.

With respect to claims 10, 12, 15-16, 19, Sanocki et al discloses an exhaust emission control device and a method of manufacturing said device, comprising:

a substrate 18;

a housing 12 having an inlet end 14 and an outlet end 16;

a retention material 22 supporting said substrate 18 in said housing 12 between said inlet end and said outlet end;

a pair of outer shells 26, one of said outer shells being disposed on said inlet end 14, and a second one of said outer shells being disposed on said outlet end 16; and

a pair of insulators 40 comprised of insulation material and binder, said insulators 40 having a first surface disposed adjacent to an inner surface of said outer shell, and a second surface defining inlet and outlet passages of the device, said second surface extending from an insulator inboard end to an insulator outboard end; and

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an inner sheet 28 overlaying the second surface of the insulator associated with the inlet end and extending from an inboard end adjacent said insulator inboard end to an outboard end adjacent said insulator outboard end (page 4, lines 21 to page 6, line 21).

The apparatus and method of Sanocki et al are substantially the same as that of the instant claims, but fail to disclose provision of a core and are silent as to whether the inner sheet may be made from open, woven mesh.

However, the same comments with respect to EP 413,998 regarding the mesh apply. Also, the same teachings regarding the core in DE 3,700,070 apply.

With respect to claim 11, Sanocki et al discloses that the substrate is a catalytic converting substrate, diesel particulate trapping substrate, etc. (page 7, lines 16-25).

With respect to claims 17-18, the same comment with respect to EP 413,998 and DE 3,700,070 regarding the integral housing apply.

Response to Arguments

9. Applicant's arguments with respect to claims 10-12, 15-19 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

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mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hien Tran whose telephone number is (571) 272-1454. The examiner can normally be reached on Tuesday-Friday from 7:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Hien Tran

HT

Hien Tran
Primary Examiner
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